

## **ABSTRACT**

Method for modeling the performance of an Information Technology system are disclosed. The method includes the steps of receiving performance data of the system; receiving data of transaction flows and system topology; and inferring service demand parameters based on the received data. If closed form expressions are available to characterize the system, an optimization algorithm based on minimum distance between predicted and measured response times and may be used to obtain the performance parameters. Alternatively, a discrete event simulator together with a set of meta-heuristic search methods may be applied to obtain the optimized performance parameters.